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one of the group comprising: the sum of the inputs, the products of the inputs, the sum of the inputs with associated weighting factors and the products of the inputs with associated weighting factors.

7. (original) An automatic vehicular exterior light control as in claim 4 wherein said neural network analysis further comprises:

at least one hidden layer node; and

at least one weighting factor, wherein each hidden layer node is associated with at least one weighting factor.

8. (original) An automatic vehicular exterior light control as in claim 7 wherein the value of each hidden layer node is based upon the product of at least one or more input and at least one weighting factor associated with each input.

9. (currently amended) An automatic vehicular exterior light control as in claim 8 wherein said exterior light control signal is based upon the product of at least one hidden layer node and ~~the associated weights~~ at least one hidden layer weighting factor.

10. (currently amended) An automatic vehicular exterior light control as in claim 4 further comprising at least one input variable wherein said at least one input variables are selected from the group of light source characteristics comprising: peak brightness, total brightness, centroid location, gradient, width, height, color, x-direction motion, y-direction motion, brightness change, age, average x-direction motion, average y-direction motion, motion jitter, a change in brightness that correlates to a change in brightness of an exterior light of a controlled vehicle and average brightness change.

11. (currently amended) An automatic vehicular exterior light control as in claim 4 further comprising at least one input variable wherein said at least one input variables are selected from the group of controlled vehicle associated operating parameters

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18. (original) An automatic vehicular exterior light control as in claim 17 wherein said empirical data is obtained by analyzing at least one image comprising known light sources.

19. (original) An automatic vehicular exterior light control as in claim 4 comprising twenty three input variables.

20. (currently amended) An automatic vehicular exterior light control, comprising:  
a controller configured to generate at least one exterior light control signal as a function of at least one probability function, wherein said at least one probability function comprises a plurality of variables and a substantially continuous output value having at least three states indicative of a probability.

21. (original) An automatic vehicular exterior light control as in claim 20 wherein said variables are selected from the group of light source characteristics comprising: peak brightness, total brightness, centroid location, gradient, width, height, color, x-direction motion, y-direction motion, brightness change, age, average x-direction motion, average y-direction motion, motion jitter, a change in brightness that correlates to a change in brightness of an exterior light of a controlled vehicle and average brightness change.

22. (original) An automatic vehicular exterior light control as in claim 20 wherein said variables are selected from the group of controlled vehicle associated operating parameters comprising: vehicle speed, ambient light level, vehicle turn rate, lane tracking, vehicle pitch, vehicle yaw, geographic location and road type.

23. (original) An automatic vehicular exterior light control as in claim 22 wherein said vehicle turn rate is determined via at least one of the items selected from the group comprising: steering wheel angle, a compass, wheel speed, GPS and image analysis results.